REPORT TO THE BOARD OF FISHERIES,

INTRODUCTION TO SHELLFISH FISHERIES

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INTRODUCTION

This report reviews the commercial fisheries for shellfish and miscellaneous dive species in Region 1, which consists of Southeast Alaska (Registration Area A) and Yakutat (Registration Area D). Area A encompasses all waters within the Alexander Archipelago and offshore waters from Dixon Entrance to Cape Fairweather, divided into Districts 1 through 16 (Figure 1.1). Area D encompasses state waters from Cape Fairweather to Cape Suckling, divided into Districts 81 through 91. Shellfish fisheries in these areas are primarily in state waters; however, a few fisheries with state management authority, such as weathervane scallops, extend into the Exclusive Economic Zone (EEZ). Data for king and Tanner crab fisheries are summarized in this introduction for comparative purposes, but are not described in later chapters. Fisheries for king and Tanner crab were considered by the board during the previous year (1998/99).

Shellfish harvests in Region 1 totaled over 12 million pounds valued at over $17 million during the last completed season or year (Table 1.1). In the top five fisheries, Southeast Tanner crab was the most valuable, followed by Southeast Dungeness crab, Southeast pot shrimp, sea cucumber, and sea urchins. In poundage, sea urchins were first, followed by Southeast Dungeness crab, then beam trawl shrimp, and Southeast Tanner crab.

Most of the shellfish fisheries are fully developed. Some stocks have been able to sustain consistent and significant harvests. The red king crab fishery was reopened in 1993 after eight years of closure and provided five years of harvests somewhat above the regulatory threshold of 300,000 pounds. The fishery was closed in 1998 due to low stock strength in a few harvest areas.

Other fisheries are in various stages of development. The pot shrimp fishery, limited to entry, has seen large increases in harvest and effort in the past decade. The sea urchin fishery is in its third year of operation with quotas remaining over 4 million pounds. Geoducks have had fairly stable landings, but their increased value, particularly for live shipments, is increasing the demand for expansion of the fishery. On the down side, the abalone fishery remains closed with little prospect for rebuilding, particularly with growing populations of sea otters in the region. Yakutat Dungeness and Tanner crab fisheries are in a collapsed state and will remain closed beginning in 2000 until they show signs of recovery and a management plan and research program are developed to provide for sustained yields.

Limited entry has played a significant role in harvest and effort trends. Recently limited fisheries include Southeast Dungeness crab, Southeast pot shrimp, Southeast trawl shrimp, and geoducks, pending approval of the Attorney General. The other dive fisheries, abalone, urchins, and sea cucumbers, are still under consideration for limited entry.

Shellfish Research and Management

The ability of the department to provide for large and sustained yields varies among the fisheries. Those fisheries with stock assessment programs and management plans are most adequately managed. These include red king crab, sea cucumbers, and sea urchins. Others lack developed management plans and stock surveys and are cause for concern. These include fisheries for Dungeness crab, golden king crab,

pot shrimp, and beam trawl shrimp. In between are fisheries having management plans, such as scallops (formal plan) and Tanner crab (draft plan) but no stock surveys.

Shellfish surveys include (1) an annual red king crab pot survey in northern Southeast Alaska, (2) annual sea cucumber dive surveys mostly in southern Southeast and the Sitka area, and (3) a sea urchin dive survey program. Pilot surveys were continued for Dungeness crab, pot shrimp, and Tanner crab, with each survey including several more districts in the latest surveys (1999). Prior surveys include a trawl survey to estimate stock abundance and size class composition of the Yakutat Bay pink and sidestripe shrimp, which was conducted on seven occasions, last in 1984. Population estimates of geoduck have been extended to include more beds, and the department has initiated reconnaissance surveys of green urchin populations under contract with industry divers.

Dockside sampling and skipper interviews are conducted for the crab and shrimp fisheries to gather a consistent time-series of data on size frequency, shell condition, average weight, sex (shrimp only), fishing location, effort levels, and estimates of average harvest per unit of effort (CPUE). These data provide the only biological information for those fisheries lacking stock surveys, which includes Dungeness crab, golden king crab, Tanner crab, trawl shrimp, and scallops. The collected information allows some assessment of relative strength of various portions of the commercially exploited populations, and a qualitative estimate of stock condition. Harvest and effort data is also collected through the fish ticket system.

Logbook information is collected from the red king crab, Tanner crab, and sea cucumber fisheries and for the shrimp trawl fisheries in non-traditional areas as well as directed sidestripe fisheries. This information is particularly valuable for management of the crab fisheries.

Staff

Regional fishery management (shellfish and other species) is under the supervision of Scott Kelley, regional management coordinator in Douglas. Marine fisheries research (non-salmon) is under the supervision of Doug Woodby, regional marine fisheries research supervisor, also in Douglas. The management and research programs for crab, shrimp, scallop, octopus, and littleneck clams are the responsibility of a shellfish staff (non-dive fisheries) with occasional participation by area management staff.

SHELLFISH STAFF			
Name	Title	Job Class	Location
Tim Koeneman	Regional Shellfish Biologist	Fisheries Biologist III	Petersburg
Catherine Botelho	Asst. Regional Shellfish Biologist	Fisheries Biologist II	Douglas
Gretchen Bishop	Asst. Regional Shellfish Biologist	Fisheries Biologist II	Douglas
Rexanne Stafford	Port Sampler	Fish and Wildlife Technician III	Petersburg
John E. Clark	Shellfish Biometrician	Biometrician II	Douglas

Research and stock assessment for the sea cucumber, sea urchin, abalone, and geoduck dive fisheries is accomplished by the dive fishery staff, with help from the area management staff.

DIVE FISHERY RESEARCH STAFF			
Name	Title	Job Class	Location
Robert Larson	Herring and Miscellaneous Species Project Leader	Fisheries Biologist III	Petersburg
Kyle Hebert	Asst. Herring and Miscellaneous Species Project Leader	Fisheries Biologist II	Petersburg
Jan Rumble	Regional Miscellaneous Species Biologist	Fisheries Biologist I	Douglas
Marc Pritchett	Miscellaneous Species Project Leader	Fisheries Biologist I	Douglas
John E. Clark	Shellfish Biometrician	Biometrician II	Douglas

Table 1.1. Registration Area A (Southeast Alaska) and Registration Area D (Yakutat): list of fisheries, harvest, and approximate exvessel values from the last completed season or calendar year.

Season or Year	Fishery	Harvest in Thousands of Pounds	Approximate Exvessel Value in Thousands of $$[a]
Southeast			
1998/99	Dungeness Crab	2,325.2	3,464.6
1998/99	Pot Shrimp	788.6	2,563.1
1998/99	Beam Trawl Shrimp	2,264.6	739.5
1998/99	Abalone	0.0	0.0
1998/99	Geoduck	111.3	236.0
1998/99	Sea Cucumber	1,055.6	1,636.1
1998	Sea Urchins	3,034.6	1,213.8
1998	Octopus	0.6	0.8
1998/99	Red and Blue King Crab	0.4	1.3
1998/99	Tanner Crab (bairdi)	2,164.1	4,795.7
1998/99	Golden king crab	367.8	1,084.6
	SUBTOTAL[b]	12,112.8	15,735.5
Yakutat			
1998/99	Dungeness Crab	65.4	132.3
1998/99	Pot Shrimp	5.2	19.8
1998/99	Otter Trawl Shrimp	0.0	0.0
1998[c]	Weathervane Scallops	275.4	1,105.6
1998/99	Red and Blue King Crab	2.1	10.1
1998/99	Tanner Crab	8.5	23.1
	SUBTOTAL[c]	356.6	1,290.9
GRAND TOTAL		12,469.4	17,026.4

* Where number of vessels participating is less than three, the information is considered confidential.

[a] This column is calculated from the average price per pound of all tickets having values indicated on them.

[b] Totals do not include confidential data.

[c] District 16 is included in Registration Area D for this fishery only.

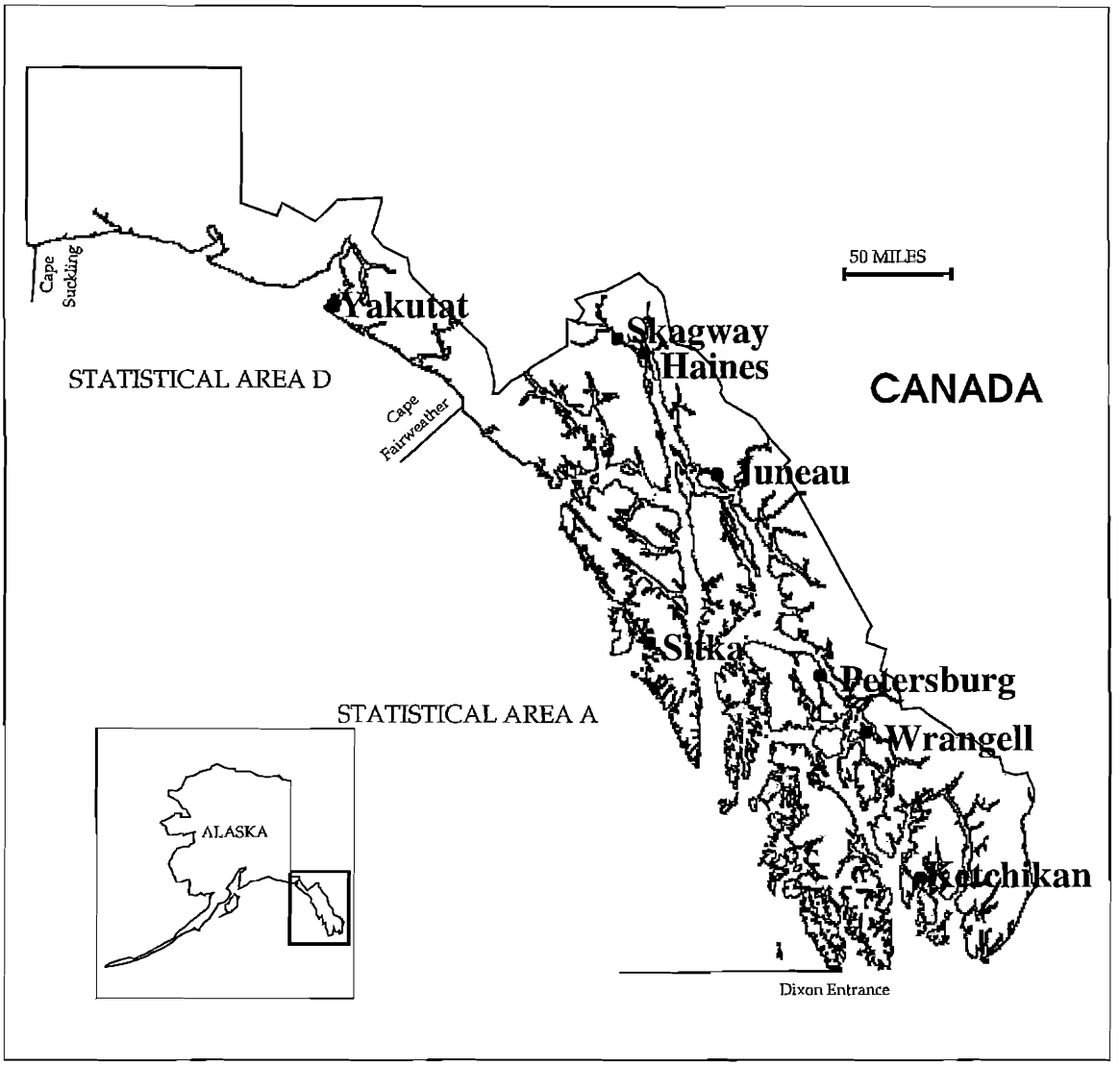

Figure 1.1. Registration Area A (Dixon Entrance to Cape Fairweather) and Registration Area D. (Cape Fairweather to Cape Suckling).